

REMARKS

In the Office Action dated January 31, 2002, the Examiner noted that the Information Disclosure Statement filed March 15, 2000 did not include a completed Form 1449, however, the Examiner stated the references cited in that Information Disclosure Statement have been considered by the Examiner and cited on Form PTO-892. Applicants apologize for the omission of Form 1449 and the Examiner's assistance and cooperation in making the references cited in the Information Disclosure Statement of record in the present prosecution are appreciated. In view of the citation of those references on Form PTO 892, no further action on the part of the Applicants is seen to be necessary.

By the present Amendment, independent claims 1 and 8 have been amended to explicitly include language therein which Applicants believe was inherently already present in the claims as originally filed, by virtue of the method of claim 1 being directed to a method for operating a *dynamic* scale, and by virtue of the scale of claim 8 being a *dynamic* scale. As explained in the Hübler et al '675 patent cited by the Examiner, and discussed in more detail below, a "dynamic scale" is a term of art which is understood by those of ordinary skill in the art as meaning a scale wherein weighing is carried out during transport of the item to be weighed. In other words, the item to be weighed does not come to rest on the weighing pan, but is continuously moved through or across the weighing pan while a weight measurement is made. The type of scale wherein the item to be weighed comes to rest on the weighing pan is, by contrast, referred to as a "static scale."

Claims 1 and 8 have been editorially amended to include language in the elements following the "comprising" transition which are consistent with the method and

scale being referred to as "dynamic" in the preamble. Moreover, each of those claims as originally filed stated that during the time range or span within which a weight measurement is made, the conveying speed is not regulated (i.e., regulation of the conveying speed is deactivated), as opposed to the times when the postal item is being moved through the entry region and the discharge region. When moving through the entry region and the discharge region, the conveying speed is regulated to be the claimed predetermined, regulated conveying speed. In claims 1 and 8 as originally filed, those of ordinary skill in the art understand that when this regulation is deactivated during the measuring time range, this allows the postal item to be moved on the weighing pan at a speed other than the aforementioned predetermined regulated conveying speed. This allows, as needed, items having a larger mass to be moved more slowly across the weighing pan but not, in the dynamic mode, coming to a complete stop. This allows more time for the weight measurement to be made, during which unwanted bouncing or oscillations due to the higher inertia of larger weight items to subside, so that a more accurate measurement of those larger items can be made. If, however, the item is not of a larger mass, there is no need to reduce the speed of movement of that item across the weighing pan and such a lighter item can still be moved across the weighing pan at a speed equal to the predetermined, regulated conveying speed, even though this speed is not being rigidly set during the measurement time. In other words, by deactivating the speed regulation during the time that the postal item is moving across the weighing pan, the *possibility* (if needed) is provided of conducting the weight measurement with the item moving at a speed other than the predetermined regulated conveying speed. If such an alteration of the

predetermined regulated conveying speed is not needed for a particular item, however, it is not necessary that any change in the speed at all takes place.

Since Applicants believe that this language now added in claims 1 and 8 merely describes operation or structure which was inherent in those claims as originally filed, Applicants do not view the language added in those claims as surrendering any of the scope of coverage encompassed in the claims as originally filed. Moreover, this language has not been added for the purpose of distinguishing either of those claims over the references relied upon by the Examiner since Applicants would have made the same arguments for patentability based on the language in the claims as originally filed being directed to a *dynamic* scale and a method for operating a *dynamic*.

Claims 8-27 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of the aforementioned Hübler et al '675 patent. In allegedly substantiating this rejection, the Examiner merely repeated the language of each of the claims 8-27 verbatim, with the unsupported statement that such language is disclosed in the Hübler '675 patent. Applicants submit, however, that there is no teaching whatsoever in the Hübler et al '675 patent that the postal item to be weighed is moved through the scale at other than a constant, unchanging speed through the entirety of the scale. In other words, there is no reduction in speed at any point in the transport of the letter through the entirety of the scale disclosed in the Hübler '675 patent. Specifically, there is no teaching at all in the Hübler et al '675 patent to deregulate the otherwise regulated conveying speed of the postal item for the time during which a measurement is made. As noted above, this language was present in independent claim 8 as originally filed, but such a teaching is not to be found in the Hübler '675 patent. In view of the complete absence of such a teaching to

deregulate the conveying speed for the during which the weight measurement is made, and in view of the contrary teachings in the Hübler et al '675 patent to convey the letter at a constant speed at all times, the subject matter of independent claim 8 would not have been obvious to a person of ordinary skill in the art in view of claims 1-17 of Hübler '675. Claims 9-27 depend from claim 8 and therefore embody all of the structure of independent claim 8, and therefore none of claims 9-27 would have been obvious in view of claims 1-17 of the Hübler et al '675 patent for the same reasons discussed above in connection with claim 8.

The load cell or weighing cell in the Hübler et al '675 patent, as in other dynamic scales of that type, moves through an extremely excursion in order to make a weight measurement. In view of this extremely small displacement of the load cell and/or weighing pan, the scale is extremely sensitive, and weight measurements can be falsified even by air movement. The Hübler et al '675 patent is directed to providing a scale structure which is sufficiently stiff, and wherein the load cell is advantageously positioned (i.e. at a location substantially coinciding with the shared center of gravity of the center of gravity of the weighing pan and the center of gravity of the postal item) so that such measurement falsifications are avoided, or at least minimized. Nothing other than a conventional, unchanging conveying speed through the entirety of the scale is disclosed in Hübler et al '675 because adjustment of the conveying speed, at least in accordance with the teachings of Hübler et al '675, is not a part of the disclosed solution to the aforementioned problem. Applicants therefore respectfully request withdrawal of the double patenting rejection. If the Examiner disagrees and believes the double patenting rejection should be maintained, the Examiner is respectfully requested to identify with specificity where the Examiner alleges the Hübler '675 patent teaches

deregulation of the predetermined regulated conveying speed for the time during which a weight measurement is made, as set forth in independent claim 8 of the present application.

Additionally, claims 1-6, 8, 9, 11-19 and 21-26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cordery et al. This rejection is respectfully traversed as well for the following reasons. The Cordery et al reference clearly is not a dynamic scale, because measurement does not take place while the item to be weighed is being conveyed through or across the weighing pan. The Cordery et al reference makes a weight measurement by analyzing the harmonic motion of the envelope (postal item) on the weighing pan. For making a weight measurement of this type, it is essential that the envelope come to a complete stop on the weighing pan, so that such harmonic motion will be as "pure" as possible, i.e., so that it will be unadulterated by any transport movement of the envelope. This is explicitly stated at column 7, lines 32-35 of the Cordery et al reference: "Obviously, if the envelope experiences any movement during oscillation, an inaccurate (sic, accurate) weighing would not be obtained." This is also made clear by Step 268 in the flowchart shown in Figure 14, which requires the operation of the drive motor to be held while a weighing takes place.

The Cordery et al reference therefore is an example of a static scale, not a dynamic scale. As noted above, the inherent attributes of a dynamic scale, and the operation thereof, have been now included in claims 1 and 8, stating that, in the dynamic operating mode, the postal item moves in succession with continuous movement through the entry region, the weighing pan and the discharge region. No such scale is disclosed or suggested in the Cordery et al reference. Moreover, in view of the aforementioned explicit teaching in the Cordery et al reference, if continuous movement

of the postal item across the weighing pan did take place during the weight measurement, the intended operation of the Cordery et al scale would be destroyed. The Cordery et al reference therefore does not disclose all of the steps or elements of independent claims 1 and 8, and thus does not anticipate either of those claims. For the same reasons, the Cordery et al reference does not anticipate any of the claims respectively depending from claims 1 and 8.

Claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Cordery et al. Claim 20 embodies the subject matter of claim 8 therein, from which it depends. As noted above, modification of the Cordery et al reference to attempt to embody therein structure as set forth in claim 8 would destroy the intended operation of the Cordery scale, and therefore such a modification is not a permissible basis for substantiating a rejection under 35 U.S.C. §103(a). Claim 20 therefore would not have been obvious to a person of ordinary skill in the art under 35 U.S.C. §103(a) based on the teachings of Cordery et al.

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Cordery et al in view of Thiel. The same arguments discussed above with regard to the teachings of Cordery et al applied to this rejection, since claim 7 depends from independent claim 1 and therefore embodies all of the method steps of that claim. Moreover, in the Thiel reference, which the Examiner has relied upon as teaching switching to a further operating mode if a weight measurement is likely to be imprecise, a weight *measurement* is not made at all in the first instance. The Thiel reference teaches making a mathematical calculation of the weight of a postal item dependent on the number of inserts, each of a known weight, contained therein. There is no teaching in the Thiel reference to switch from one type of *measurement* mode to another type of

measurement mode, but instead the Thiel reference teaches only switching from a *calculating* to a *measurement* mode. For all of the above reasons, therefore, the subject matter of claim 7 would not have been obvious to a person of ordinary skill in the art based on the teachings of Cordery et al and Thiel.

Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Cordery et al in view of Yankloski, as was claim 27. As to claim 10, the Examiner relied on the Yankloski reference as teaching a particular arrangement of the support mechanism and the conveyor belt, and as to claim 27 the Examiner relied on Yankloski as teaching the use of an encoder. Clearly, neither of these teachings, even if present in the Yankloski reference, alters the basic differences between claim 8 (from which each of claims 10 and 27 depend) and the teachings of Cordery et al. Therefore, even if the Cordery et al reference were modified in accordance with the teachings of Yankloski, the subject matter of claims 10 and 27 still would not result. Claims 10 and 27, therefore would not have been obvious to a person of ordinary skill in the art based on the teachings of Cordery et al in view of Yankloski.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Amended) A method for controlling a dynamic scale for processing mixed postal items having respectively different formats, said dynamic scale having a motor-driven conveyor for moving a postal item, in a dynamic operating mode, in succession with continuous movement through an entry region of the scale, a weighing pan, and a discharge region of the scale, said method comprising the steps of:

in [a] said dynamic operating mode, supplying a piece of mail to said entry region of the scale at a predetermined regulated conveying speed which is independent of the format of the piece of mail, and conveying said piece of mail through said entry region of the scale to said weighing pan;

deactivating regulation of the conveying speed during a measuring time range while said postal item is [on] conveyed through said weighing pan and obtaining a weight measurement of said postal item, thereby allowing said weight measurement to be obtained with said postal item moving at a speed other than said predetermined regulated conveying speed;

and

after said measuring time span, re-activating regulation of the conveying speed and moving said postal item at said predetermined regulated conveying speed from said weighing pan through said discharge region of said scale.

Claim 8 has been amended as follows:

8. (Amended) A dynamic scale comprising:

a conveyor arrangement for conveying postal items having a conveyor belt

driven by a motor;

a scale housing having an entry region for postal items and a discharge region

for postal items;

a weighing pan connected to a weighing cell, said weighing pan being

disposed between said entry region and said discharge region and said

conveyor arrangement, in a dynamic operating mode, conveying a

postal item with continuous movement in succession through said entry

region, said weighing pan and said discharge region; and

a controller which operates said motor to move said belt at a predetermined,

regulated conveying speed when a postal item enters said entry region,

said controller deactivating regulation of said conveying speed while

said postal item is [disposed on] moving through said weighing pan

during a measuring time span during which a weight measurement of

said postal item is made, allowing said weight measurement to be

made with said postal item moving at a speed other than said

predetermined, regulated conveying speed, and, after said measuring

time span, said controller re-activating regulation of said conveying

speed to move said postal item on said belt through said discharge

region.